VENETIAN BLIND AND METHOD FOR ITS PRODUCTION

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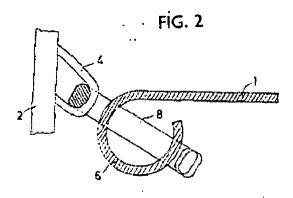
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Abstract of GB1512274

1512274 Venetian blinds STOREN-UND MASCHINENFABRIK EMIL SCHENKER AG 11 Nov 1975 [23 July 1975] 46588/75 Heading E1J A venetian blind comprises laminae 1 sup- ported on strings 2 by staples 8. The strings have interwoven loops 4 through which the staples extend, the limbs of the staples passing through flanges 6 at the edges of the laminae and being bent over. The flange may retain a plastics reinforcement member (10, Fig. 4). The staples are driven through the flange by a driver (17, Figs. 5, 6) while the lamina edge is retained by blocks (12, 15).



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PATENT SPECIFICATION

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(54) VENETIAN BLIND AND METHOD FOR ITS PRODUCTION

(71) We, STOREN- UND MACHIN-ENFABRIK EMIL SCHENKER AG., a Swiss company, of Schulstrasse 1, 5012 Schonenward, Switzerland, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The present invention relates to a venetian blind comprising laminae held by supporting strings wherein fixing means are provided at regular intervals on the supporting strings to fix the laminae to the supporting strings, as well as a method for the manufacture of a venetian blind.

With venetian blinds, it is known to arrange web ties between the supporting strings and to introduce laminae between the web ties. In so doing, the problem arises of always keeping the lamnie in parallel alignment. To solve this problem, it has been suggested arranging locating attachment means at regular intervals on the supporting strings, which engage the laminae and produce a positive and/or or frictional connection with the supporting strings. However this known solution has the disadvantage that it requires a laborious operation.

The present invention arises out of the problem of improving the connecting means between the supporting strings on the one hand and the laminae on the other hand so that the production of the blind can take

place simply and rapidly.

Accordingly, this invention provides a venetian blind comprising laminae retained by supporting strings, wherein fixing means are provided at regular intervals on the supporting strings, in order to fasten the laminae to the supporting strings, characterized in that each of the laminae is provided with a flange on each of its long sides and the fixing means are formed as staples, with the limbs of each staple driven through a said flange and being bent over on to that side of the flange which is remote from the supporting string. The limbs of each staple may be

driven through a portion of the respective supporting string and the respective flange and the ends of the limbs projecting beyond the flange are bent over.

The invention is described by way of example with the aid of the accompanying diagrammatic drawing. This shows:

Figure 1 is a perspective view of a section of a venetian blind,

Figure 2 a section along the line II—II according to Figure 1,

Figure 3 a plan view of Figure 2 partially in section,

Figure 4 a similar representation to Figure 2 having reinforcing member embraced by the flange,

Figure 5 an horizontal section through an apparatus for applying the staples in accordance with the line V—V according to Figure 6 and

Figure 6 a section along the line VI—VI according to Figure 5.

In Figure 1, a lamina 1 of a venetian blind is held between two supporting strings 2 and 3. Loops 4 and 5 are interwoven at regular intervals on the supporting strings 2 and 3. The lamina 1 is provided on its long sides with rounded flanges 6 and 7. Staples 8 and 9 engage through the loops 4 and 5, which staples are driven through the flanges 6 and 7 and are bent over at the free ends of their limbs. Figures 2 and 3 show to a larger scale, the fixing of the lamina 1 to the supporting string 2. The staples 8 consist of a metal wire, round in cross-section or rounded at the edges in order to prevent a rubbing action between the staples 8 on the one hand and the loops 4 on the other. The two limbs of the staples 8 are driven through the entire flange, diametrically of the flange, and the free ends of the limbs are bent over as is known with normal staples. The bridge of the staple 8 is bent V-shaped in order to form an intermediate space with respect to the flange 6, in which the loop 4 can find room with sufficient clearance.

As Figure shows, a member 10, shaped to

	form a buffer or reinforcement, of plastics
	material can be inserted in the flange 6 and
	be positively retained therein. During the
_	insertion of the staple 8, the free portion 11
5	of the buffer member 10 can be located against
	the underside of the lamina 1 and after the
	application of the staple 8 be bent back into
	the position illustrated in Figure 4. In this
	instance also, the openings in the flange 6
10	for the limbs of the staple are not pre-bored.
	As is apparent from Figures 5 and 6, the
	lamina 1 together with the flange is laid on
	a fixed bending block 12 for the application
	of the staples 8, which bending block has a
15	concave supporting surface 13 for a portion
	of the flange 6. Opposite the bending block
	12 and reciprocable in the direction of the
	arrow 14, is mounted a clamping block 15
	having a second supporting surface 16. The
20	two supporting surfaces 13 and 16 embrace
	the flange 6 over the major portion of its
	periphery. Furthermore, a driver 17 reciproc-
	able in the direction of the arrow 16, is
	mounted in the clamping block 15. The driver
25	17 has an end surface 19 simulating the bridge
	of the staple 8. In the bending block 12 oppo-
	site to the end surface 19, there is arranged
	a concave recess 20 comprising rounded por-
	tions 21 in which the free ends of the limbs
30	of the staple 8 are bent over. For the inser-
	tion of a staple 8, the clamping block 15 is separated from the bending block 12 towards
	separated from the bending block 12 towards
	the left in the direction of the arrow 14 and
	the lamina 1 is inserted with the flange 6 en-
35	gaging the supporting surface 13 and a string
	with a loop is placed in appropriate position.
	Then, the clamping block 15 is pushed against
	the bending block 12 (arrow 14) so that
-	one of the two limbs of the block 10 passes
40	through the loop. In so doing, the driver 17
	is located in its outermost limit position and
	a staple 8 is pushed in front of the end sur-
	face 19. Then the driver 17 is moved towards
	the recess 20 whereby one of the limbs of the
45	staple passes through the loop and then both
	limbs penetrate the opposite wall portions of
	the flange 6 and run against the rounded por-
	tions 21 where they are bent over. A pre-
	boring of the openings for the limbs of the
50	staple in the flange 6 is not necessary. There-

after, the driver 17 and the clamping block 15 are moved back and the described working cycle can be repeated.

WHAT WE CLAIM IS:-

1. A Venetian blind comprising laminae retained by supporting strings, wherein fixing means are provided at regular intervals on the supporting strings, characterized in that each of the laminae is provided with a flange on each of its long sides and the fixing means are formed as staples, with the limbs of each staple driven through a said flange and being bent over on to that side of the flange which is remote from the supporting string.

2. A venetian blind according to Claim 1 characterized in that the supporting strings have loops at regular intervals which form a portion of the supporting string and that each staple is driven through a respective loop into

the respective flange.

3. A venetian blind according to Claim 1 or 2 characterized in that a reinforcing member is positively retained in each flange, by the flange being rounded to embrace the reinforcing member.

A venetian blind according to Claim 1,
 or 3, characterized in that each staple has

a cross-section which is rounded.

5. A method for the production of venetian blinds according to Claim 1 characterized in that the limbs of each staple are driven through a portion of the respective supporting string and the respective flange and the ends of the limbs projecting beyond the flange are bent over.

6. A venetian blind substantially as herein described with reference to Figures 1 to 3 or Figure 4 of the accompanying drawings.

7. A method of producing a venetian blind substantially as herein described.

8. Apparatus for producing a venetian blind, substantially as described herein with reference to Figures 5 and 6 of the accompanying drawings.

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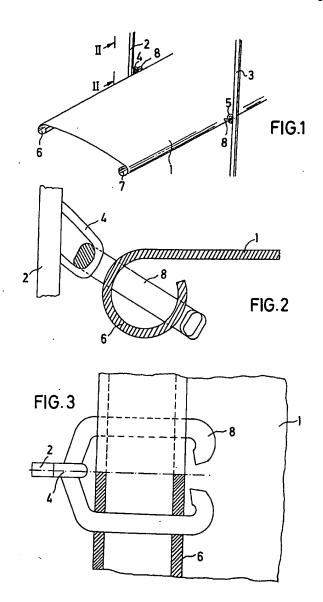
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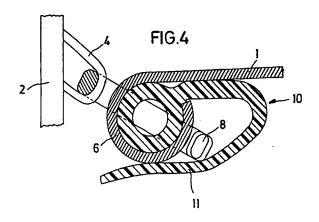
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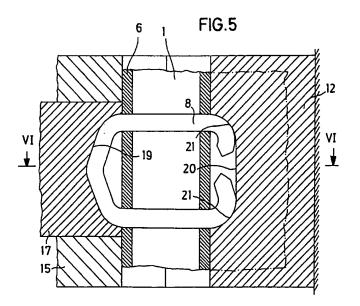


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FIG.6

